



Air Quality Permitting Statement of Basis

June 29, 2005

Tier I Operating Permit No. T1-050105

**Potlatch Corporation
Post Falls Particleboard
Post Falls, ID**

Facility ID No. 055-00018

Prepared by:

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PUBLIC COMMENT

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Acronyms, Units, and Chemical Nomenclatures

| | |
|-------------------|--|
| AFS | AIRS Facility Subsystem |
| AIRS | Aerometric Information Retrieval System |
| AQCR | Air Quality Control Region |
| ASTM | American Society for Testing and Materials |
| BACT | Best Available Control Technology |
| CAA | Clean Air Act |
| CFR | Code of Federal Regulations |
| CO | carbon monoxide |
| DEQ | Department of Environmental Quality |
| dscf | dry standard cubic feet |
| EPA | U.S. Environmental Protection Agency |
| gr | grain (1 lb = 7,000 grains) |
| HAPs | Hazardous Air Pollutants |
| hp | horsepower |
| IDAPA | a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act |
| km | kilometer |
| lb/hr | pound per hour |
| m | meter(s) |
| MACT | Maximum Achievable Control Technology |
| MMBtu | million British thermal units |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| NO _x | nitrogen oxides |
| NSPS | New Source Performance Standards |
| O ₃ | ozone |
| PM | particulate matter |
| PM ₁₀ | particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers |
| ppm | parts per million |
| PSD | Prevention of Significant Deterioration |
| PTC | permit to construct |
| PTE | potential to emit |
| Rules | Rules for the Control of Air Pollution in Idaho |
| SIC | Standard Industrial Classification |
| SIP | State Implementation Plan |
| SO ₂ | sulfur dioxide |
| T/yr | tons per year |
| µg/m ³ | micrograms per cubic meter |
| UTM | Universal Transverse Mercator |
| VOC | volatile organic compound |

Public Comment / Affected States / EPA Review Summary

A 30-day public comment period for the Potlatch Corp. of Post Falls, Idaho draft Tier I operating permit will be held from in accordance with IDAPA 58.01.01.364, *Rules for the Control of Air Pollution in Idaho*.

IDAPA 58.01.01.008.01 defines *affected states* as: “*All states: whose air quality may be affected by the emissions of the Tier I source and that are contiguous to Idaho; or that are within 50 miles of the Tier I source.*”

A review of the site location information included in the permit application indicates that the facility **is** located with 50 miles of a state border. Therefore, the state of Washington and state of Montana will be provided an opportunity to comment on the draft Tier I operating permit.

1. PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01.200, Rules for the Control of Air Pollution in Idaho, for issuing permits to construct.

2. FACILITY DESCRIPTION

The Potlatch Post Falls facility manufactures particleboard from wood shavings and resin. Trucks deliver and dump wood shavings in one of two storage buildings. A drag chain feeds the wood shaving to milling machines, which process the wood shavings into furnish. The furnish is dried in a rotary dryer and temporarily stored in the outside dry silo. Furnish from the outside dry silo and sanderdust is then passed through a weigh system to either the #1 small blender and main blender, or the #2 small blender. In the blenders, resin is mixed with the sanderdust and furnish. The mix is conveyed to a former where the mix takes the shape of a mat approximately the size of a 4'X8' particleboard panel. The mats are pressed by the particleboard press, allowed to cool, cut to size, and sanded. Scrap from the saw line is processed back into furnish. Sanderdust generated by the process is stored, used for the manufacturing process or as fuel for the facility's Kipper and Sons boiler, or sold. The Kipper and Sons boiler provides steam heat for the process and plant make-up air.

3. FACILITY / AREA CLASSIFICATION

Potlatch's Post Falls facility is defined as a major facility in accordance with IDAPA 58.01.01.008.10 for Tier I permitting purposes because the facility has the potential to emit (PTE) NO_x and VOC at over 100 T/yr. The facility is not a Prevention of Significant Deterioration (PSD) major source because emissions do not exceed the PSD threshold of 250 T/yr. The AIRS classification is "A" because potential emissions of NO_x and VOC are greater than 100 T/yr.

The facility is located within AQCR 62 and UTM zone 11. The facility is located in Kootenai County which is designated as unclassifiable for all criteria pollutants.

The AIRS information provided in Appendix A defines the classification for each regulated air pollutant at Potlatch, Post Falls. This required information is entered into the EPA AIRS database.

4. APPLICATION SCOPE

4.1 *Application Chronology*

| | |
|------------------|-------------------------------------|
| February 2, 2005 | DEQ received application |
| March 3, 2005 | DEQ determined application complete |
| April 21, 2005 | DEQ received additional information |

5. PERMIT ANALYSIS

This section of the Statement of Basis describes the regulatory requirements for this operating permit.

5.1 *Regulatory Review*

This section describes the regulatory analysis of the applicable air quality rules with respect to this PTC.

IDAPA 58.01.01.210.....Demonstration of Preconstruction Compliance with Toxic Standards

The applicant has demonstrated preconstruction compliance for all TAPs identified in the permit application.

IDAPA 58.01.01.300.....Procedures and Requirements for Tier I Operating Permits

The facility is Tier I major facility with a current Tier I operating permit. The proposed project is significant modification of the current Tier I operating permit.

IDAPA 58.01.01.382.....Significant Permit Modification

This regulation stipulates the criteria and procedures for a significant permit modification. The proposed project is significant modification of the current Tier I operating permit that meets the criteria specified within the regulation IDAPA 58.01.01.210, Demonstration of Preconstruction Compliance with Toxic Standards.

40 CFR 63, Subpart DDDDNational Emission Standards for Hazardous Air Pollutants:
Plywood and Composite Wood Products

This subpart establishes compliance options, operating requirements, and work practice requirements for hazardous air pollutants (HAP) emitted from plywood and composite wood products (PCWP) manufacturing facilities that are a major source of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the compliance options, operating requirements, and work practice requirements for PCWP facilities that are a major source of HAP emissions. The requirements of this subpart do not apply to this facility because the facility-wide HAP emissions of the facility have been limited to below major source thresholds.

40 CFR 63, Subpart DDDDDNational Emission Standards for Hazardous Air Pollutants for
Industrial, Commercial, and Institutional Boilers and Process
Heaters

This subpart establishes emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards. The requirements of this subpart do not apply to this facility because the facility-wide HAP emissions of the facility have been limited to below major source thresholds.

5.2 Fee Review

The Potlatch Corp. Post Falls facility is a major facility as defined in IDAPA 58.01.01.008.10 and is therefore subject to registration and registration fees in accordance with IDAPA 58.01.01.387. The facility is current with its registration fees.

6. PERMIT CONDITIONS

This section summarizes and explains the changes associated with the significant modification of this Tier I operating permit.

- 6.1 Facility-wide requirements have been updated to include updated language. The permit conditions of the emission unit formerly called Emission Unit Group 4 – Wood Handling have been incorporated into Emission Unit Group 3 – Wood Handling, Drying and Pressing.
- 6.2 Permit Condition 5.3 contains the PM₁₀ emission limits for the particleboard manufacturing process.
- 6.3 Permit Condition 5.4 contains the visible emission requirements for the particleboard manufacturing process.

- 6.4 Permit Conditions 5.7, 5.8, 5.11, and 5.12 establish the operating, monitoring, and recordkeeping requirements necessary to demonstrate compliance with opacity and PM₁₀ emission limits of Permit Conditions 2.4 and 2.5. These permit requirements, along with General Provision 2, require the permittee to operate the control equipment associated with the particleboard manufacturing process when it is operating, and assures compliance with the opacity requirement of Permit Condition 2.5.
- 6.5 Permit Condition 5.2 limits the PTE of facility-wide HAPs below major source thresholds.
- 6.6 Permit Condition 5.5 contains stack height and exhaust release requirements necessary to assure compliance with PM₁₀ annual NAAQS.
- 6.7 Permit Condition 5.6 establishes the performance test requirements necessary to demonstrate compliance with Permit Condition 5.2. A performance test to measure total HAP was required in order to demonstrate compliance with the facility-wide HAP emission limit of less than 25 tons per any consecutive 12-month period (T/yr) for any combination of HAPs of Permit Condition 5.2. Performance tests to measure formaldehyde and methanol were required to demonstrate compliance with the facility-wide HAP emission limit of less than 10 tons per any consecutive 12-month period (T/yr) for any single HAP of Permit Condition 5.2. Permit Condition 5.6 shall be used to develop emission factor data necessary to demonstrate continuing compliance with Permit Condition 5.2. Permit Condition 5.6 also requires the permittee to conduct the performance test at minimum of 90% of the maximum furnish usage rate of the process in order to assure compliance with Permit Condition 5.2.
- 6.8 Permit Condition 5.6 defines total HAPs for the Permit. The definition was taken from 40 CFR 63.2292, and was included in the Permit to be consistent with 40 CFR 63, Subpart DDDD. The performance tests listed in Permit Condition 5.6 were also taken from 40 CFR 63, Subpart DDDD in order to be consistent with that subpart.
- 6.9 Permit Condition 5.10 requires that the permittee monitor and record monthly and annually the HAP emissions from the particleboard manufacturing using the emission factors and furnish usage records required by Permit Conditions 5.6 and 5.9, respectively, to demonstrate compliance with Permit Condition 5.2. Emissions will be estimated using a spreadsheet similar to that included in Appendix B.
- 6.10 Permit Condition 3.8 establishes a maximum pressure for boiler steam in order to limit emissions of. As taken from the July 19, 2001 technical analysis memorandum, the maximum pressure of 300 psi absolute corresponds to an actual dryer temperature of 397 deg. F, the temperature which Potlatch and DEQ has established to limit formaldehyde emissions. The citation for this permit condition has been updated to reflect the new PTC.

7. PERMIT REVIEW

7.1 Facility Review of Draft Permit

A facility draft permit was received by the facility on May 10, 2005.

7.2 Public Comment

An opportunity for public comment period on the Tier I operating permit signification modification application will be provided, in accordance with IDAPA 58.01.01.364.

8. RECOMMENDATION

Based on review of application materials and all applicable state and federal rules and regulations, staff recommend that Company Name be issued draft permit No. T1-050105 for public comment

AC/sd Permit No. T1-05010

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Appendix A
AIRS Information
P-050104

AIRS/AFS^a FACILITY-WIDE CLASSIFICATION^b DATA ENTRY FORM

Facility Name: Potlatch Corporation

Facility Location: Post Falls

AIRS Number: 055-00018

| AIR PROGRAM POLLUTANT | SIP | PSD | NSPS (Part 60) | NESHAP (Part 61) | MACT (Part 63) | SM80 | TITLE V | AREA CLASSIFICATION A-Attainment U-Unclassified N- Nonattainment |
|--------------------------|-----|-----|-------------------|---------------------|-------------------|------|---------|---|
| SO ₂ | A | | | | | | | U |
| NO _x | A | | | | | | A | U |
| CO | B | | | | | | | U |
| PM ₁₀ | B | | B | | | | | U |
| PT (Particulate) | B | | | | | | | U |
| VOC | A | | | | | | A | U |
| THAP (Total HAPs) | B | | | | | | | |
| APPLICABLE SUBPART | | | | | | | | |
| DC | | | | | | | | |

^a Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS)

^b AIRS/AFS Classification Codes:

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For HAPs only, class "A" is applied to each pollutant which is at or above the 10 T/yr threshold, **or** each pollutant that is below the 10 T/yr threshold, but contributes to a plant total in excess of 25 T/yr of all HAPs.
- SM = Potential emissions fall below applicable major source thresholds if and only if the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).